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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,611	10/14/2003	Frank E. Semersky	1-36691	2924

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EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

MAIL DATE	DELIVERY MODE
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05/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/684,611	SEMERSKY, FRANK E.	
	Examiner	Art Unit	
	Hai Vo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. All of the art rejections are maintained. The 102 art rejections are changed to 102/103 to place them in better form for rejections.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 5, 8-10, 12, 13, 16-19 and 22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Park et al (US 5,149,579). Park teaches a container comprising a polypropylene skin layer, polypropylene foam layer, a functional layer and a polypropylene foam layer (column 8, lines 30-60). Park uses carbon dioxide as a blowing agent to form the foam (column 10, lines 45-46), therefore, it is not seen that the foam cells could not have been substantially, inherently filled with carbon dioxide. The skin and the foam layer are made from the same polypropylene. The foam layer and the functional layer are made from different materials. Accordingly, it is the examiner's position that Park anticipates or strongly suggests the claimed subject matter.

4. Claims 3, 4, 6, 7, 14, 15, 20, 21, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al (US 5,149,579) as applied to claim 1 above, further in view of Hayes et al (US 6,485,819).

Park teaches a container comprising polypropylene film layer, a functional layer and a polypropylene foam layer (column 8, lines 30-60). Park does not teach a container comprising a foam layer and a film layer, each made from a polyethylene terephthalate. Hayes, however, teaches a multilayer laminate for use in food packaging comprising a foam layer made from a copolyester that exhibit an improved rate of biodegradation more amendable to solid waste disposal (column 1, lines 5-10). Hayes also teaches a multilayer laminate for use in food packaging wherein a polymeric film can be made from a blend of poly(ethylene terephthalate) with olefins to form multilayer films with improved water vapor resistance (column 9, lines 60-65; column 10, lines 1-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute a copolyester foam for the polypropylene foam layer motivated by the desire to provide the container with higher biodegradation rate and higher thermal resistance. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the poly(ethylene terephthalate) with polypropylene to form a film layer of the Park Patent motivated by the desire to provide the container having improved water vapor resistance (column 9, lines 60-65).

Park teaches a container comprising a non-foamed polypropylene skin layer, polypropylene foam layer, a functional layer (column 8, lines 30-60). Park does not specifically disclose the functional layer made from PET. Hayes, however, teaches a food container comprising a layer of copolyester suitable as a gas barrier (column 8, lines 7-8). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use copolyester as the functional layer of Park because copolyester is shown to be a good oxygen barrier and further the use of copolyester provides the container with higher biodegradation rate and higher thermal properties.

5. Claims 1-10, 22, and 23 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hayes et al (US 6,485,819). Hayes teaches a laminate film for use in containers comprising a polyethylene terephthalate (PET) film layer and a copolyester film layer (column 9, lines 61 et seq.). The layer of copolyester is foamed by using carbon dioxide as a blowing agent (column 15, lines 35-40). Therefore, it is the examiner's position that the foam cells would substantially inherently filled with carbon dioxide. Since the foam and the film contain polyethylene terephthalate, they are made from "the same polyethylene terephthalate". The isosorbide polyester renders the foam layer chemically different from the PET film layer. Accordingly, it is the examiner's position that Hayes anticipates the claimed subject matter.
6. Claims 12-17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes et al (US 6,485,819) as applied to claim 1 above, further in view of

Park et al (US 5,149,579). Hayes teaches a food container comprising a copolyester foam layer. Hayes does not teach a food container comprising two foam layers and a functional layer sandwich between the foam layers. Park teaches a food container comprising two foam layers and a functional layer sandwich between the foam layers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a food container comprising a functional layer sandwiched between two copolyester foam layers to provide a container with a water vapor or air barrier, thereby extending the shelf-life of an oxygen-sensitive product containing therein (Park, column 8, lines 50-57).

7. Claims 18-21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes et al (US 6,485,819) as applied to claim 1 above, further in view of Haase (US 3,684,633). Hayes teaches a laminate film for use in containers comprising a film layer and a layer of copolyester (column 9, lines 61 et seq.). The layer of copolyester is foamed by using carbon dioxide as a blowing agent (column 15, lines 35-40). The laminate may have five layers joined together by heat (column 10, lines 5-10). The film layer can be made from PET, polyethylene, polyethylene sulfide, or polyimide (column 10. lines 1-10). Accordingly, the laminate film comprises one foam layer made from copolyester and other four film layers formed from PET, polyethylene, polyethylene sulfide, or polyimide. Hayes does not specifically disclose the order of the film layer, the foam layer in the laminate to meet the structural limitations as recited in the claims. Haase,

however, teaches a dinner plate comprising a polystyrene foam layer sandwiched between the polystyrene film layers. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a food container having a copolyester foam layer sandwiched between the PET film layers because such a structure is known in the food packaging art and Haase provides necessary detail to practice the invention of Hayes.

8. Claims 1- 10, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kocher et al (US 5,919,547) further in view of Hayes et al (US 6,485,819). Kocher teaches a food container comprising a support member 12, a sealant layer (column 10, lines 30-60). The support member and a sealant layer are made of a polyethylene terephthalate resin. Hence, they are the same. The support member is polyolefin foam whereas the sealant layer is made from polyethylene terephthalate. Therefore, they are different. Kocher does not teach the use of carbon dioxide to form the foamed support member. Hayes, however, teaches the food container comprising a foam layer of copolyester using carbon dioxide as a blowing agent. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use carbon dioxide as a blowing agent to generate the foam cells in the support member because such is known in the foam art and Hayes provides necessary details to practice the invention of Kocher. Accordingly, the foam cells of Kocher as modified by Hayes would substantially inherently filled with carbon dioxide.

Response to Arguments

9. The art rejections over Park taken alone or in combination with other references have been maintained for the following reasons. Applicant argues that Park discloses the blowing agent and air diffuses from the cell walls, the cells are thus not substantially filled with a blowing agent. The arguments are not found persuasive for patentability. The foam is aged for a period of time to allow for diffusion of the blowing agent and air through the cell walls. The aging likewise indicates that Park does teach an existence of a foam prior to the aging period having the foam cells substantially filled with carbon dioxide. The present amendment "one of carbon dioxide and nitrogen" does not preclude the foam cells from being substantially filled with carbon dioxide.

10. The art rejections based on Hayes or Kocher have been maintained for the following reasons. Applicant argues that Hayes does not teach or suggest the foam cells substantially filled with one of carbon dioxide and nitrogen. The examiner respectfully disagrees. As previously discussed, Hayes uses carbon dioxide as a blowing agent forming the voids as Applicant. Therefore, it is the examiner's position that the foam cells would substantially inherently filled with carbon dioxide.

Applicant has reiterated positions taken with respect to the other rejections, the examiner's comments set forth above are equally pertinent in the support of these rejections as well. Accordingly, the art rejections are sustained.

Conclusion

Art Unit: 1771

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai Vo

HV

**HAIVO
PRIMARY EXAMINER**